



**Healthcare-associated infections (HAIs)** are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are reported to CDC's National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website. **This report is based on 2015 data, published in 2017 and uses the 2015 Baseline and risk-adjusted models.**

## CLABSIs

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- Not enough data to calculate percent of ACHs with SIRs better or worse than the value of the national SIR.
- Rhode Island reported higher (worse) SIR compared to the value of the national SIR.

## CAUTIs

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- Among the 10 ACHs with enough data to calculate an SIR:
  - 10% had an SIR significantly higher (worse) than 0.993, the value of the national SIR.
  - 0% had an SIR significantly lower (better) than 0.993, the value of the national SIR.
- Rhode Island reported higher (worse) SIR compared to the value of the national SIR.

## VAEs

### VENTILATOR-ASSOCIATED EVENTS

When a medical problem makes it hard or impossible for a patient to breathe on their own, they may be placed on a special breathing machine called a ventilator to save their life. This usually involves placing a tube in the patient's airway, and attaching the tube to the ventilator. Patients on ventilators are usually very sick, and they can develop problems related to their illness or related to being on a ventilator. This includes infections such as pneumonia or other problems such as fluid buildup in the lungs.

- Not enough data to calculate percent of ACHs with SIRs better or worse than the value of the national SIR.
- Rhode Island reported higher (worse) SIR compared to the value of the national SIR.

## SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a **surgical site infection**. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

#### SSI: Abdominal Hysterectomy

- Not enough data to calculate percent of ACHs with SIRs better or worse than the value of the national SIR.
- Rhode Island reported lower (better) SIR compared to the value of the national SIR.

#### SSI: Colon Surgery

- Not enough data to calculate percent of ACHs with SIRs better or worse than the value of the national SIR.
- Rhode Island reported higher (worse) SIR compared to the value of the national SIR.

## C. DIFFICILE EVENTS

### LABORATORY-IDENTIFIED HOSPITAL-ONSET C. DIFFICILE EVENTS

When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (*C. difficile*), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

- Among the 11 ACHs with enough data to calculate an SIR:
  - 36% had an SIR significantly higher (worse) than 0.993, the value of the national SIR.
  - 9% had an SIR significantly lower (better) than 0.993, the value of the national SIR.
- Rhode Island reported higher (worse) SIR compared to the value of the national SIR.

## MRSA BACTEREMIA

### LABORATORY-IDENTIFIED HOSPITAL-ONSET BLOODSTREAM EVENTS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream events.

- Not enough data to calculate percent of ACHs with SIRs better or worse than the value of the national SIR.
- Rhode Island reported lower (better) SIR compared to the value of the national SIR.





Healthcare-associated infection (HAI) data give healthcare facilities and public health agencies knowledge to design, implement, and evaluate HAI prevention efforts.

2015 DATA						
HAI TYPE	# ACHs REPORTING <sup>+</sup>	2015 SIR DISTRIBUTION <sup>‡</sup>			2015 STATE SIR	2015 NAT'L SIR
		MINIMUM	MEDIAN	MAXIMUM		
CLABSI	11	—	—	—	1.072	0.994
CAUTI	11	—	—	—	1.353	0.993
VAE	6	—	—	—	1.212	1.000
SSI, Abdominal Hysterectomy	11	—	—	—	0.914	1.003
SSI, Colon Surgery	11	—	—	—	1.152	0.999
<i>C. difficile</i> Events	11	—	—	—	1.185	0.993
MRSA Bacteremia	11	—	—	—	0.584	0.998

<sup>+</sup>The number of ACHs that reported to NHSN and are included in the SIR calculation. This number may vary across HAI types; for example, some hospitals do not use central lines or urinary catheters or ventilators. States with less than 5 facilities are suppressed.

<sup>‡</sup>These data represent the distribution of all hospital SIRs for each HAI type. The lowest facility SIR is represented by the “minimum”, and the highest facility SIR is the “maximum”. The median represents the middle of the distribution; half of all facilities fall below (and above) this SIR value. Distributions are only calculated when at least 20 hospitals had enough data to calculate an SIR.

For additional data points, refer to the technical data tables at [www.cdc.gov/hai/progress-report/](http://www.cdc.gov/hai/progress-report/)

#### LEARN HOW YOUR HOSPITAL IS PERFORMING:

[www.medicare.gov/hospitalcompare](http://www.medicare.gov/hospitalcompare)

#### FOR ADDITIONAL INFORMATION:

- 2015 HAI Data Report: [www.cdc.gov/hai/progress-report](http://www.cdc.gov/hai/progress-report)
- NHSN: [www.cdc.gov/nhsn](http://www.cdc.gov/nhsn)
- Preventing HAIs: [www.cdc.gov/hai](http://www.cdc.gov/hai)
- For more information on the 2015 Baseline and risk adjustment calculation, please visit: <https://www.cdc.gov/nhsn/2015rebaseline/index.html>
- The new SIR Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>
- Rhode Island website: [www.health.ri.gov/diseases/healthcareacquiredinfections/](http://www.health.ri.gov/diseases/healthcareacquiredinfections/)

